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10/09#2-
OIPE

RAW SEQUENCE LISTING

DATE: 09/25/2001

PATENT APPLICATION: US/09/783,338

TIME: 09:58:12

Input Set : N:\Crif3\RULE60\09783338.txt

Output Set: N:\CRF3\09252001\I783338.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:

5 (i) APPLICANT: Glazer, Peter M.

6 Havre, Pamela A.

8 (ii) TITLE OF INVENTION: Chemically Modified Oligonucleotide for
9 Site-Directed Mutagenesis

11 (iii) NUMBER OF SEQUENCES: 13

13 (iv) CORRESPONDENCE ADDRESS:

14 (A) ADDRESSEE: Patrea L. Pabst

15 (B) STREET: 1100 Peachtree Street, Suite 2800

16 (C) CITY: Atlanta

17 (D) STATE: Georgia

18 (E) COUNTRY: USA

19 (F) ZIP: 30309-4530

21 (v) COMPUTER READABLE FORM:

22 (A) MEDIUM TYPE: Floppy disk

23 (B) COMPUTER: IBM PC compatible

24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

25 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

27 (vi) CURRENT APPLICATION DATA:

C--> 28 (A) APPLICATION NUMBER: US/09/783,338

C--> 29 (B) FILING DATE: 14-Feb-2001

30 (C) CLASSIFICATION:

32 (vii) PRIOR APPLICATION DATA:

33 (A) APPLICATION NUMBER: US 08/083,088

34 (B) FILING DATE: 25-JUN-1993

38 (viii) ATTORNEY/AGENT INFORMATION:

39 (A) NAME: Pabst, Patrea L.

40 (B) REGISTRATION NUMBER: 31,284

41 (C) REFERENCE/DOCKET NUMBER: YU109

44 (ix) TELECOMMUNICATION INFORMATION:

45 (A) TELEPHONE: (404)-815-6508

46 (B) TELEFAX: (404)-815-6555

48 (2) INFORMATION FOR SEQ ID NO: 1:

50 (i) SEQUENCE CHARACTERISTICS:

51 (A) LENGTH: 11 base pairs

52 (B) TYPE: nucleic acid

53 (C) STRANDEDNESS: single

54 (D) TOPOLOGY: linear

56 (ii) MOLECULE TYPE: DNA (genomic)

58 (iii) HYPOTHETICAL: NO

60 (iv) ANTI-SENSE: NO

62 (ix) FEATURE:

63 (A) NAME/KEY: misc_feature

64 (B) LOCATION: 1..11

65 (D) OTHER INFORMATION: /function= "N is

66 4'-hydroxymethyl-4,5',8-trimethylpsoralen"

ENTERED

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68      (x) PUBLICATION INFORMATION:
69          (A) AUTHORS: Glazer, Peter M.
70 Havre, Pamela A.
71          (K) RELEVANT RESIDUES IN SEQ ID NO:1: FROM 1 TO 11
73      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
75 NAGGAAGGGG G                                     11
81 (2) INFORMATION FOR SEQ ID NO: 2:
83      (i) SEQUENCE CHARACTERISTICS:
84          (A) LENGTH: 10 base pairs
85          (B) TYPE: nucleic acid
86          (C) STRANDEDNESS: single
87          (D) TOPOLOGY: linear
89      (ii) MOLECULE TYPE: DNA (genomic)
91      (iii) HYPOTHETICAL: NO
93      (iv) ANTI-SENSE: NO
95      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
97 AGGAAGGGGG                                     10
99 (2) INFORMATION FOR SEQ ID NO: 3:
101      (i) SEQUENCE CHARACTERISTICS:
102          (A) LENGTH: 10 base pairs
103          (B) TYPE: nucleic acid
104          (C) STRANDEDNESS: single
105          (D) TOPOLOGY: linear
107      (ii) MOLECULE TYPE: DNA (genomic)
109      (iii) HYPOTHETICAL: NO
111      (iv) ANTI-SENSE: NO
113      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
115 GGGGGAAGGA                                     10
118 (2) INFORMATION FOR SEQ ID NO: 4:
120      (i) SEQUENCE CHARACTERISTICS:
121          (A) LENGTH: 8 base pairs
122          (B) TYPE: nucleic acid
123          (C) STRANDEDNESS: single
124          (D) TOPOLOGY: linear
126      (ii) MOLECULE TYPE: DNA (genomic)
128      (iii) HYPOTHETICAL: NO
130      (iv) ANTI-SENSE: NO
132      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
134 CCCCCTTC                                     8
136 (2) INFORMATION FOR SEQ ID NO: 5:
138      (i) SEQUENCE CHARACTERISTICS:
139          (A) LENGTH: 11 base pairs
140          (B) TYPE: nucleic acid
141          (C) STRANDEDNESS: single
142          (D) TOPOLOGY: linear
144      (ii) MOLECULE TYPE: DNA (genomic)
146      (iii) HYPOTHETICAL: NO
148      (iv) ANTI-SENSE: NO
150      (ix) FEATURE:

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151      (A) NAME/KEY: misc_feature
152      (B) LOCATION: 1..11
153      (D) OTHER INFORMATION: /function= "N is
154 4'-hydroxymethyl-4,5',8-trimethylpsoralen"
156      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
158 NGGGGGAAGG A                                     11
160 (2) INFORMATION FOR SEQ ID NO: 6:
162      (i) SEQUENCE CHARACTERISTICS:
163          (A) LENGTH: 18 base pairs
164          (B) TYPE: nucleic acid
165          (C) STRANDEDNESS: single
166          (D) TOPOLOGY: linear
168      (ii) MOLECULE TYPE: DNA (genomic)
170      (iii) HYPOTHETICAL: NO
172      (iv) ANTI-SENSE: NO
174      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
176 GGTTCGAATC CTTCCCCC                             18
178 (2) INFORMATION FOR SEQ ID NO: 7:
180      (i) SEQUENCE CHARACTERISTICS:
181          (A) LENGTH: 18 base pairs
182          (B) TYPE: nucleic acid
183          (C) STRANDEDNESS: single
184          (D) TOPOLOGY: linear
186      (ii) MOLECULE TYPE: DNA (genomic)
188      (iii) HYPOTHETICAL: NO
190      (iv) ANTI-SENSE: NO
194      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
196 GGTTCGAAAC CTTCCCCC                             18
198 (2) INFORMATION FOR SEQ ID NO: 8:
200      (i) SEQUENCE CHARACTERISTICS:
201          (A) LENGTH: 35 base pairs
202          (B) TYPE: nucleic acid
203          (C) STRANDEDNESS: single
204          (D) TOPOLOGY: linear
206      (ii) MOLECULE TYPE: DNA (genomic)
208      (iii) HYPOTHETICAL: NO
210      (iv) ANTI-SENSE: NO
212      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
214 TGGTGGTGGG GGAAGGATTC GAACCTTCGA AGTCG         35
216 (2) INFORMATION FOR SEQ ID NO: 9:
218      (i) SEQUENCE CHARACTERISTICS:
219          (A) LENGTH: 35 base pairs
220          (B) TYPE: nucleic acid
221          (C) STRANDEDNESS: single
222          (D) TOPOLOGY: linear
224      (ii) MOLECULE TYPE: DNA (genomic)
226      (iii) HYPOTHETICAL: NO
228      (iv) ANTI-SENSE: NO
232      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

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234 CGACTTCGAA GGTTCGAATC CTTCCCCCAC CACCA 35
236 (2) INFORMATION FOR SEQ ID NO: 10:
238     (i) SEQUENCE CHARACTERISTICS:
239         (A) LENGTH: 121 base pairs
240         (B) TYPE: nucleic acid
241         (C) STRANDEDNESS: single
242         (D) TOPOLOGY: linear
244     (ii) MOLECULE TYPE: DNA (genomic)
246     (iii) HYPOTHETICAL: NO
248     (iv) ANTI-SENSE: NO
250     (ix) FEATURE:
251         (A) NAME/KEY: misc_feature
252         (B) LOCATION: 1..60
253         (D) OTHER INFORMATION: /function= "At positions 16 and 57,
254 N is G or T."
256     (ix) FEATURE:
257         (A) NAME/KEY: misc_feature
258         (B) LOCATION: 1..121
259         (D) OTHER INFORMATION: /function= "At position 17, N is A,
260 G or T."
262     (ix) FEATURE:
263         (A) NAME/KEY: misc_feature
264         (B) LOCATION: 1..121
265         (D) OTHER INFORMATION: /function= "At position 18, N is A,
266 C or T."
269     (ix) FEATURE:
270         (A) NAME/KEY: misc_feature
271         (B) LOCATION: 1..121
272         (D) OTHER INFORMATION: /function= "At position 20, N is G
273 or A."
275     (ix) FEATURE:
276         (A) NAME/KEY: misc_feature
277         (B) LOCATION: 1..121
278         (D) OTHER INFORMATION: /function= "At position 24, N is C
279 or T."
281     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
283 TGGTGGTGGG GGAAGNNNTN GAANCTTCGA AGTCGATGAC GGCAGATTTA GAGTCTNCTC 60
285 CCTTTGGCCG CTCGGAACC CCACCACAGG TAATGCTTTT ACGGGGCGCA TCATATCAAA 120
287 T 121
289 (2) INFORMATION FOR SEQ ID NO: 11:
291     (i) SEQUENCE CHARACTERISTICS:
292         (A) LENGTH: 121 base pairs
293         (B) TYPE: nucleic acid
294         (C) STRANDEDNESS: single
295         (D) TOPOLOGY: linear
297     (ii) MOLECULE TYPE: DNA (genomic)
299     (iii) HYPOTHETICAL: NO
301     (iv) ANTI-SENSE: NO
303     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

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305 ATTTGATATG ATGCGCCCCG TAAAAGCATT ACCTGTGGTG GGGTCCCCGA GCGGCCAAAG      60
307 GGAGCAGACT CTAAATCTGC CGTCATCGAC TTCGAAGGTT CGAATCCTTC CCCCACCACC      120
309 A                                     121
311 (2) INFORMATION FOR SEQ ID NO: 12:
313     (i) SEQUENCE CHARACTERISTICS:
314         (A) LENGTH: 121 base pairs
315         (B) TYPE: nucleic acid
316         (C) STRANDEDNESS: single
317         (D) TOPOLOGY: linear
319     (ii) MOLECULE TYPE: DNA (genomic)
321     (iii) HYPOTHETICAL: NO
323     (iv) ANTI-SENSE: NO
326     (ix) FEATURE:
327         (A) NAME/KEY: misc_feature
328         (B) LOCATION: 1..121
329         (D) OTHER INFORMATION: /function= "At position 7, N is G
330 or T."
332     (ix) FEATURE:
333         (A) NAME/KEY: misc_feature
334         (B) LOCATION: 1..121
335         (D) OTHER INFORMATION: /function= "At positions 12, 20 and
336 117, N is C or G."
338     (ix) FEATURE:
339         (A) NAME/KEY: misc_feature
340         (B) LOCATION: 1..121
341         (D) OTHER INFORMATION: /function= "At positions 15, 16,
342 21, 29, 78, 83 and 108, N is A or G."
343     (ix) FEATURE:
344         (A) NAME/KEY: misc_feature
345         (B) LOCATION: 1..121
346         (D) OTHER INFORMATION: /function= "At positions 18, 49,
347 68, 69, and 107, N is C or T."
348     (ix) FEATURE:
349         (A) NAME/KEY: misc_feature
350         (B) LOCATION: 1..121
351         (D) OTHER INFORMATION: /function= "At position 114, N is
352 C, T or A."
354     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
356 TGGTGGNGGG GNAANNANTN NAACCTTCNA AGTCGATGAC GGCAGATTNN GAGTCTNCTC      60
358 CCTTTGGNNG CTCGGGANCC CCNCCACAGG TAATGCTTTT ACGGGGNNCA TCANNTNAAA      120
360 T                                     121
363 (2) INFORMATION FOR SEQ ID NO: 13:
365     (i) SEQUENCE CHARACTERISTICS:
366         (A) LENGTH: 121 base pairs
367         (B) TYPE: nucleic acid
368         (C) STRANDEDNESS: single
369         (D) TOPOLOGY: linear
371     (ii) MOLECULE TYPE: DNA (genomic)
373     (iii) HYPOTHETICAL: NO

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VERIFICATION SUMMARY

DATE: 09/25/2001

PATENT APPLICATION: US/09/783,338

TIME: 09:58:13

Input Set : N:\Crf3\RULE60\09783338.txt

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L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]